



Sabrina Grassini
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Sabrina Grassini received the M.S. degree in Chemistry from the University of Torino (Italy) in 1999 and the PhD in Metallurgical Engineering at Politecnico di Torino (Italy) in 2004. She is Associate Professor of Applied Physical Chemistry (ING-IND/23) at the Department of Applied Science and Technology, Politecnico di Torino (Italy). She teaches “Chemistry” and “Corrosion and protection of materials” and she has been member of the Advisory Board of the PhD Programme in Metrology at Politecnico di Torino since 2014. She is member of the “Teaching and Language Lab” of Politecnico di Torino and Advisor of the Women in Engineering Affinity Group, PoliTO IEEE Student Branch (2020-2022).

International agreements and mobility:

- Responsible of the Inter-institutional Agreement between Politecnico di Torino (Italy) and Ben-Gurion University of the Negev (Israel) in the frame of the Erasmus+ programme - Key Action 1 - Mobility for learners and staff, 2019-2022
- She was nominated for the Erasmus+ Partner Countries mobility at the Monash University (Clayton, Australia) in 2018, at the University of Queensland (Brisbane, Australia) in 2019 and at the Ben-Gurion University of the Negev (Beer-Sheva, Israel) in 2020 and 2021
- She has been scientific responsible of three international research cooperation agreements with the Carleton University (Canada), the Jordan University and the Palestine Technical University of Kadoorie; she has been external expert of the European Commission - FP7 Framework Programme (2016-2020).

International reputation:

- Secretary and treasurer of the International Corrosion Council (ICC), 2021-2024
- Secretary of the Working Party 21-Corrosion of Archaeological and Historical Artifacts of the European Federation of Corrosion, since 2019
- Member of the International Advisory Board of the Egyptian Corrosion Society since 2009
- Member of the AdCOM of the IEEE Instrumentation and Measurement Society (IMS) and Tutorial chair of the IMS Educational Committee, 2020-2023
- Member of the Steering Committee of the IEEE-International Symposium on Medical Measurement and Applications (MeMeA) since 2013
- Technical Program Chair of MeMeA2014, Lisboa (Portugal)
- General Chair of MeMeA2015 (Torino, Italy), MeMeA 2020 (Bari, Italy) and MeMeA2022 (Messina, Italy)
- Secretary of the IEEE TC-25 on Medical and Biomedical Measurements
- Member of the TC-17 on Materials in Measurements of the IEEE-Instrumentation and Measurement Society
- Treasurer of the IEEE WIE Italy Session
- Member of the IMEKO-TC24 on Chemical Measurements
- Technical Programme Chair of the IMEKO International Conference on Metrology for Archaeology and Cultural Heritage in 2016
- Member of the Scientific Committee of the IMEKO International Conference on Metrology for Archaeology and Cultural Heritage since 2015.

National reputation:

- Associate to the Istituto Nazionale di Fisica Nucleare (INFN), Sezione di Torino
- Member of the INFN-CHNet (Cultural Heritage Network)
- Member of the GRICU - Gruppo di Ingegneria chimica dell'Università
- Member of the Technical Committee on Corrosion of the Italian Association of Metallurgy (AIM)
- Member of the Associazione Italiana di Archeometria (AIAR)
- Member of the GMEE – Gruppo Misure Elettriche ed Elettroniche

Research topics and publications:

She has published more than 200 papers on books, national and international journals and in the proceedings of national and international conferences mainly on:

- Conservation of Cultural Heritage: studies of degradation processes of metallic artifacts and development of tailored strategies for restoration and conservation; innovative technologies for protection of metallic artifacts; innovative sensors for indoor and outdoor environmental monitoring
- Plasma chemistry and physico-chemical characterization of nanostructured thin films;
- Optical and biomedical sensors, measurements for medicine;
- Electrochemical characterization of plasma deposited nanostructured thin films

Responsibility of national and international research projects:

- 2021-2023: “Tecnologie innovative per il controllo, il monitoraggio e la sicurezza in mare – TETI”, progetto ARS01_00333, Progetti di ricerca industriale e sviluppo sperimentale PNR 2015-2020, area “Blue Growth”
- 2021- 2024: European COST Action “European MIC Network – New paths for science, sustainability and standards” (Euro-MIC) - CA20130, European Cooperation in Science and Technology
- 2018-2022: Member of the Supervisory Board of the PhD European Programme “Archaeological and Cultural Heritage Materials Science” - ED-ARCHMAT – GA 766311, Marie Skłodowska-Curie Actions (MSCA) Innovative Training Networks (ITN) H2020-MSCA-ITN-2017.
- 2015-2016: LAPIS - “Le biomasse algali per la produzione di idrogeno mediante pirolisi”, progetto Regione Piemonte, Programma Operativo Regionale PAR FSC 2007/2013 Asse I – Linea 1.3.C “Poli di Innovazione” – Quarto Programma Annuale
- 2011-2013: Scientific responsible for the Department of Applied Science and technology, Politecnico di Torino, FP7-INCO-2010-6.2/CSA, ERA-WIDE Program: “Jordan Conservation of Cultural Heritage in ERA - JOCHERA”, contract n°294975
- 2011-2013: Scientific responsible for the Department of Applied Science and technology, Politecnico di Torino, FP7-INCO-2010-6.2/CSA, ERA-WIDE Program: “Palestine for European Research Area – PERA”, 2011-2013, contract n°266605

Participation to national and international research projects on Cultural Heritage:

- 2004-2008: FP6-2002-INCO-MPC, STREP project: Developing new analytical techniques and materials for monitoring and protecting metal artefacts and monuments from the Mediterranean country (PROMET), contract n° INCO-CT-2004-509126
- 2007-2009: FP6-2002-INCO-MPC/SSA-2: Mediterranean Conservation Alliance (MEDAL), contract n° 43849
- 2003-2005: FP5-2002-INCO-MPC: Tailored strategies for the conservation and restoration of archaeological value Cu-based artefacts from Mediterranean Countries (EFESTUS), 2003-2005, contract n° ICA3-CT-2002-10030
- 2016-2018: Particular Relevance project with Egypt in the frame of the MAE Joint Science and Technology Cooperation
- 2017-2019: Internationalization of Research with Colombia and Israel financially supported by Politecnico di Torino and Compagnia di San Paolo
- 2000: “Progetto Finalizzato” CNR on Cultural Heritage 2000 and Special Materials for Advanced Technology

International research projects:

- 2010-2013: FP7-INCO-2010-6.2/CSA, ERA-WIDE program: Capacity Building for Direct Water Reuse in the Mediterranean Area - CB-WR-MED, contract n°266609
- 2004-2007: FP6-2003-STREP-NMP-3-CT: New coatings deposited by PACVD for corrosion protection - MATECO, contract n° NMP3-CT-2003-505928
- 2002-2005: FP5-2002-Competitive and Sustainable Growth Program: Development of Innovative Nanocomposites Coatings for Magnesium Castings Protection - NANOMAG, contract n° G1RD-CT2002-00692

National research projects:

- PRIN 2007: Tecniche innovative per la definizione dello stato di degrado nei metalli
- PRIN 2004: Sviluppo di film biodegradabili ad alta barriera
- 2003-2004 Progetto Galileo in cooperazione con la Francia (Université Pierre e Marie Curie, Paris): Metodologia innovativa per la protezione di reperti archeologici e storico-artistici a base argento
- 2001-2002: Progetto Galileo in cooperazione con la Francia (Université Pierre e Marie Curie, Paris): Metodologie per la determinazione dell'efficacia di protettivi per reperti archeologici metallici
- 2001-2002: Fondo speciale per la Ricerca Applicata (FRA) - Sviluppo di un sistema portatile per la misura dell'impedenza (ODINO)
- 2000: Progetto Finalizzato Beni Culturali PF36 – CNR - Metodologia per la valutazione dello stato di conservazione e dell'efficacia dei trattamenti di protezione di reperti archeologici in ferro
- 2000: Progetto CNR-Agenzia 2000 - Progettazione di una strumentazione mobile per il riconoscimento dell'originalità di manufatti metallici antichi

Technology transfer:

- 2009-2012 Progetto Regione Piemonte - Converging Technologies 2007: High power laser in nanostructured fibres – HIPERNANO
- 2006-2009: Bando Regione Piemonte sulla Ricerca Scientifica applicata 2004: Arrays cellulari e molecolari basati su materiali nanostrutturati fotoattivi
- 2012-2014 Progetto PON 01_01063 – Ricerca Industriale e Sviluppo Sperimentale: Sistema Nazionale Protezione Siti Sensibili – SINAPSIS

Editorial boards:

- Associate Editor of the IEEE - Transactions on Instrumentation and Measurement
- Member of the Editorial Board of ACTA IMEKO journal
- Member of the Editorial Board of Egyptian Journal of Archaeological and Restoration Studies

Awards

- 2020: Recognition as a top 70 Most Productive Associate Editor in the Past 7 years, IEEE Instrumentation and Measurement Society – IEEE Transactions on Instrumentation and Measurement
- 2020: Recognition as a top 70 Most Published Author in the Past 7 years, IEEE Instrumentation and Measurement Society – IEEE Transactions on Instrumentation and Measurement
- 2020: 2nd place best paper presented, IEEE International Instrumentation and Measurement Technology Conference – I2MTC2020, Dubrovnik, Croatia, May 2020 for the paper: *A Customized Bioimpedance Meter for Monitoring Insulin Bioavailability*
- 2020: Best Conference Paper, IMEKO TC-4 International Conference - Metroarchaeo2020, Trento, Italy, October 2020, for the paper: *Upgrade of the X-ray imaging set-up at CCR "La Venaria Reale": the Case study of an Egyptian wooden statuette*
- 2018: 1st place conference best paper award, IEEE International Instrumentation and Measurement Technology Conference - I2MTC2018, Houston, USA, May 2018 for the paper: *Optical solution for particulate distribution estimation*
- 2014: 2nd place conference paper award, IEEE International Instrumentation and Measurement Technology Conference - I2MTC2014; Montevideo, Uruguay, May 2014 for the paper: *Sputtered thermocouple array for vial temperature mapping*

- 2013: 2nd place conference paper award, IEEE International Instrumentation and Measurement Technology Conference - I2MTC2013; Minneapolis, MN, USA, May 2013 for the paper: *Biodegradable metallic materials: a measuring approach to predict the corrosion rate*
- 2007: "Massimo Sancrotti" best paper award, Associazione Italiana del Vuoto - Nanotecnologie e dei Film Sottili for the paper: *Low Pressure Plasma: A New Approach in Conservation.*

External Expert for EU projects:

- 2021: External Expert for the EuroTechPostdoc2 Programme – Excellence in Science and technology - Marie Skłodowska-Curie COFUND project under Horizon 2020
- 2007: “External Independent Expert” for the FPVII Cooperation Specific Programme, Call Identifier: FP7-ENV-2010, Sub-Activity "Environmental Technologies" - ENV.2010.3.2.1-1 "Non-destructive diagnosis technologies for the safe conservation of movable cultural assets"

E-learning:

She has also experience in e-learning having been tutor of the course of Chemistry and of the course of Materials Science at the Università Telematica Internazionale Uninettuno (2006-2008).